

4GWC

Meters & More
Gateway



A three-phase PLC modem or gateway with proven **ZIV's own technology** according to Meters and More protocol

**meters
AND more**
OPEN TECHNOLOGIES

The 4GWC-gateway forms part of a remote management system with automatic meter reading (AMR) through the low voltage network (Power Line Communication or PLC).

The 4GWC is a compact device that provides efficient solutions in the deployment of PLC smart meters.

The operation as a repeater through its three phases of reception (simultaneous) and transmission improves the reachability of PLC meters in the network.

This device is intended for the interconnection of other devices implementing Meters and More PLC technology. This equipment therefore integrates Meters and More modem capabilities and LAN connectivity over an ethernet port. Possible scenarios:

- Virtual data concentrator which needs a PLC node to communicate with smart meters using meters and more protocol.
- Secondary substations with more than one transformer. In these installations just one data concentrator acts as master, and this is connected to more than one PLC modem (one per transformer).
- Repeater.

Key Features

- Compact, easy-to-install and ruggedized device designed for indoor installation.
- Both reception and transmission can be carried out by any of the 3 phases and **between phase-phase**. Therefore, the device will have six M&M MAC layers with logical identifiers assigned to a unique physical identifier (4GWC serial number).
- The application protocol is Meters and More through all interfaces (PLC or IP).
- The device can operate as a **Meters and More repeater by simulating 6 different nodes**, one for each combination of phases.
- It can be listening permanently through all three phases at once. The device is capable of identify the node which the communication is referring to and, in the transmission, the 4GWC will use the phase corresponding to this node.
- Secured access and encrypted data transmission.
- LED indicators to give information during installation or maintenance operations.
- Self-Diagnostics and monitoring. Status flags to provide information about the incidences or operations.
- Three event recording logs with independent memory and POP-OUT (once is read, it is removed from the event log) and FIFO (first event generated, first event deleted) operation.
- The device will perform a reboot by Watchdog functionality when it detects 24 hours (configurable) without operation.

Technical Information

Rated value (Vn)	3x127/400 Vac 50/60Hz
Operating range	0.4 to 1.1 Un
PLC module	3 phase Module SMITP protocol TS 50568
Ethernet port	IEEE 802.3, 10/100 Base-T Auto MDI-X (crossover) Half / Full duplex
Maximum power consumption (normal conditions)	7 W total / 37 VA per phase
Maximum power consumption (forced conditions)	12 W total / 37 VA per phase
Overvoltage Category	IV (IEC 60950)
Cover protection	Class II double isolation
Dielectric insulation Voltage	2 kV
Impulse Voltage	6 kV
Operating and storage range	-25°C to 70°C Humidity <95% (non-condensing)
IP/IK classification	IK08/IP20
Connection	Wall or DIN rail
Dimensions (mm)	149,7 x 98 x 39,8

